Title (en)

VACUUM DRILLING SYSTEM AND METHODS

Title (de)

VAKUUMBOHRSYSTEM UND -VERFAHREN

Title (fr)

SYSTÈME ET PROCÉDÉS DE FORAGE SOUS VIDE

Publication

EP 3004517 A4 20170215 (EN)

Application

EP 14803737 A 20140527

Priority

- US 201361828056 P 20130528
- US 2014039500 W 20140527

Abstract (en)

[origin: US2014356087A1] A vacuum drilling system and methods is provided that may utilize both a through tool coolant supply as well as a central vacuum extraction system. The system may include a cutting head provided on a hollow tube and a vacuum source to apply vacuum pressure to the area of the cutting head via one or more chip inlets arranged proximate to the cutting head. Sealed coolant containment channels supply coolant to the area of the cutting head.

IPC 8 full level

E21B 10/42 (2006.01); **B23B 51/06** (2006.01); **B23Q 11/00** (2006.01); **E21B 10/60** (2006.01)

CPC (source: EP US)

B23B 51/06 (2013.01 - EP US); B23B 2251/50 (2022.01 - EP US); B23B 2251/68 (2013.01 - EP US); B23B 2260/072 (2013.01 - EP US); Y10T 408/03 (2015.01 - EP US); Y10T 408/04 (2015.01 - EP US); Y10T 408/453 (2015.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2014356087 A1 20141204; **US 9573201 B2 20170221**; CN 105378211 A 20160302; CN 105378211 B 20191126; EP 3004517 A1 20160413; EP 3004517 A4 20170215; EP 3004517 B1 20180711; HK 1219123 A1 20170324; JP 2016520008 A 20160711; JP 6165974 B2 20170719; KR 101825999 B1 20180206; KR 20160008568 A 20160122; SG 11201509529V A 20151230; US 10005138 B2 20180626; US 2017136555 A1 20170518; WO 2014193785 A1 20141204

DOCDB simple family (application)

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